

IN THE CLAIMS:

Please add new claims 7-17. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A light guide having an end face, an emitting face and an internal face, and which emits lights incident on the end face from the emitting face extending longitudinally of the guide, while the lights are reflected by the internal face wherein a sectional shape thereof in a direction orthogonal to the longitudinal direction of this light guide has two opposite parabolas or two oval curves, a line segment connecting the focal points of said two opposite parabolas or the focal points of said two oval curves, and a line segment corresponding to said emitting face.

2. (Previously Presented) The light guide according to Claim 1, wherein a side face of the light guide on a side of said emitting face is substantially parallel to the optical axis.

3. (Previously Presented) An image reader comprising an illuminating unit including the light guide according to Claim 1 and a light source on an end face of the light guide, a lens array for converging on a light receiving element lights radiated from the illuminating unit toward a document and reflected by the document or transmitted by the document, and a box housing the illuminating unit and the lens array.

4. (Previously Presented) The image reader according to Claim 3, including two of said illuminating units, and the illuminating units are so arranged as to cause lights emitted from the

emitting faces of the light guides thereof to irradiate the same area of a face of the document being illuminated.

5. (Previously Presented) An image reader comprising an illuminating unit including the light guide according to Claim 2 and a light source on an end face of the light guide, a lens array for converging on a light receiving element lights radiated from the illuminating unit toward a document and reflected by the document or transmitted by the document, and a box housing the illuminating unit and the lens array.

6. (Previously Presented) The image reader according to Claim 5, including two of said illuminating units, and the illuminating units are so arranged as to cause lights emitted from the emitting faces of the light guides thereof to irradiate the same area of a face of the document being illuminated.

7. (New) The light guide according to claim 1, wherein the sectional shape of the light guide causes light emitted from the emitting face to be confined to a prescribed emission angle.

8. (New) The light guide according to claim 1, wherein the said line segment connecting the focal points is disposed opposite to said line segment corresponding to said emitting face and has a scattering pattern formed thereon.

9. (New) The light guide according to claim 1, wherein said end face is adapted to receive incident light thereon from a light source.

10. (New) The light guide according to claim 1, wherein the line segment corresponding to said emitting face of the light guide has a larger width than that of the said line segment connecting the focal points.

11. (New) A light guide comprising:

an end face;

an emitting face extending longitudinally of the guide; and

an internal face;

wherein:

the light guide emits light incident on the end face from the emitting face while the light is reflected by the internal face;

the light emitted from the emitting face is confined to a prescribed emission angle;

a sectional shape of the light guide in a direction orthogonal to the longitudinal direction of this light guide has two opposite parabolas or two oval curves, a line segment connecting the focal points of said two opposite parabolas or the focal points of said two oval curves, and a line segment corresponding to said emitting face; and

said line segment connecting the focal points is disposed opposite to said line segment corresponding to said emitting face and has a scattering pattern formed thereon.

12. (New) The light guide according to Claim 11, wherein a side face of the light guide on a side of said emitting face is substantially parallel to an optical axis of the light guide.

13. (New) The light guide according to claim 11, wherein said end face is adapted to receive incident light thereon from a light source.

14. (New) The light guide according to claim 11, wherein the line segment corresponding to said emitting face of the light guide has a larger width than that of the said line segment connecting the focal points.

15. (New) A light guide comprising:

an end face;

an emitting face extending longitudinally of the guide; and

an internal face;

wherein:

said end face is adapted to receive incident light thereon from a light source;

the light guide emits the light incident on the end face from the emitting face while the light is reflected by the internal face; and

a sectional shape of the light guide in a direction orthogonal to the longitudinal direction of this light guide has two opposite parabolas or two oval curves, a line segment connecting the focal points of said two opposite parabolas or the focal points of said two oval curves, and a line segment corresponding to said emitting face.

16. (New) The light guide according to claim 15, wherein the line segment corresponding to said emitting face of the light guide has a larger width than that of the said line segment connecting the focal points.

17. (New) The light guide according to claim 15, wherein the said line segment connecting the focal points is disposed opposite to said line segment corresponding to said emitting face and has a scattering pattern formed thereon.